European and monetary union in Europe and constraints on national budgetary policies

Bovenberg, A.L.; Kremers, J.J.M.; Masson, P.

Published in:
IMF Staff Papers

Publication date:
1991

IMF *Staff Papers*
Vol. 38, No. 2 (June 1991)

Economic and Monetary Union in Europe and Constraints on National Budgetary Policies

A. LANS BOVENBERG, JEROEN J.M. KREMERS, and PAUL R. MASSON*

The pros and cons of institutionalized constraints limiting the freedom of national budgetary policies within an economic and monetary union in Europe are reviewed. The issue is approached from three angles: the influence of EMU on budget discipline, intergenerational equity and intertemporal efficiency, and macroeconomic stabilization. The desirability of constraints on budgetary policy is related to the arrangements for EMU-wide monetary policy, the credibility of a no-bailout clause among member states, and progress in the area of supply-side policies. [JEL E62, F33, H6]

THE PROCESS leading the European Community (EC) toward economic and monetary union (EMU) gained considerable momentum with the publication of the Delors Report (see Delors Committee (1989)) in early 1989 and the subsequent decision to convene an Intergovern-

* A. Lans Bovenberg is currently on leave from the IMF at the Ministry of Economic Affairs in the Netherlands; he received his Ph.D. from the University of California at Berkeley. He was an Economist in the Fiscal Affairs Department when work on this paper began.

Jeroen J.M. Kremers, who is with the Ministry of Finance in the Netherlands, holds a D.Phil. from Oxford University. He was an Economist in the European Department when work on this paper began.

Paul R. Masson, an Advisor in the Research Department, received his Ph.D. from the London School of Economics and Political Science.

The paper benefited from comments by Matt Canzoneri, Donogh McDonald, Pieter Stek, George Tavlas, and Jarig van Sinderen, and from participants in the conference on "The Political Economy of Government Debt," sponsored by the University of Amsterdam and the Netherlands Bank in June 1990.

mental Conference before the end of 1990 to frame EMU within the EC Treaty. Two cornerstones of EMU are, first, the free movement of persons, goods, services, and capital within the EC internal market by 1992; and, second, a monetary union. Progress on the "1992" project has been steady, and completion of the internal market is far advanced. Thanks in part to the convergence of monetary policies within the European Monetary System (EMS), a fair degree of consensus has emerged on the contours of monetary policy in EMU. A principal remaining issue of contention is whether EMU will necessitate institutionalized constraints on national budgetary policies.

The report of the Delors Committee (1989), which was prepared by a committee that included the central bank governors of the EC member states, saw a need to institutionalize binding rules for the budget deficits of member states in order to ensure that the common monetary policy could effectively maintain price stability. Some observers have also argued that constraints on public deficits or debt were necessary to insure member states against the possibility of having to bail out another member that had run up an excessive public debt. More recently, the Commission of the European Communities (1990) argued that the adoption of binding budget rules institutionalized at the EC level would be undesirable for both economic and practical reasons. Such rules would violate the principle of subsidiarity, namely, that no more powers should be transferred to the Community level than strictly necessary for EMU. Instead, the Commission recommended that the rules or guidelines for maintaining budget discipline be anchored at the national level, in combination with binding procedures at the EC level for enforcing these rules or guidelines. This paper considers these issues by analyzing the interactions between monetary union and budget discipline. The paper does not consider the *transition* to monetary union.

The challenge is to find a practical arrangement that constrains budgetary policies in line with the requirements of budget discipline—defined as control of the budget so as to avoid pressures for monetary accommodation or bailout by other EMU member states—while, at the same time, not forcing these policies into a straitjacket that is suboptimal from a more general point of view. Budgetary policies play an important role in providing public goods, and, more generally, influencing intergenerational equity and intertemporal efficiency. Budgetary policies may also stabilize the economy in the wake of disturbances. Automatic stabilizers can help to counterbalance short-run economic cycles, but in some circumstances discretionary policy changes may also be desirable. Finally, although it is not an effective instrument for fine-tuning short-run fluctuations in the economy, budgetary policy can facilitate the adjust-

ment of an economy to certain shocks (provided of course that the shocks are correctly identified). The importance of budgetary policy implies that the international coordination of budgetary policies and the proper mix of these policies with EC monetary policy are not trivial issues.

The rest of the paper is structured as follows. Section I summarizes what EMU implies for the environment of budgetary policy (monetary union, internal market, and related aspects, such as tax harmonization). Against that background, Section II discusses how EMU will affect the prospects for budget discipline, and the adverse external effects on other EC countries that are associated with undisciplined budgetary policies. The discussion also mentions a few measures, short of specific rules for deficits and debt, that could enhance policymakers' incentives for discipline. The implications of EMU for budget discipline are examined from the perspective of intergenerational equity and intertemporal efficiency in Section III. The stabilization role of budgetary policy is considered in Section IV, followed by concluding comments in Section V.

I. EMU: A New Environment for Budgetary Policy

A fairly strong consensus has emerged that monetary union, if it does materialize, will involve an operationally independent European Central Bank (ECB) with a mandate to maintain price stability.[1] Subject to this priority, the ECB would support general economic policy in the EC. Such a setup would resemble the current situation in Germany and the Netherlands. Even though the central bank in those countries is quite independent and attaches great importance to price stability, each retains a degree of sensitivity to other economic objectives. Accordingly, under special circumstances, effective pressure might build up that could temporarily compromise price stability. This paper assumes that a single EMU-wide monetary policy would be conducted by an independent ECB, among whose objectives price stability would carry the dominant weight, and other economic variables, such as economic growth and employment, would carry relatively smaller weights. The ECB would thus be characterized as a "conservative central banker."[2] Intra-EC nominal exchange rates are in this paper assumed to be completely and

[1] See both Delors Committee (1989) and Commission of the European Communities (1990).

[2] More precisely, it is assumed that the ECB would assign a large weight to price stability in the day-to-day conduct of monetary policy. Of course, the underlying philosophy is that, in a longer time perspective, price stability is a necessary condition for the healthy development of the real economy.

credibly fixed, reflecting, presumably, the presence of a single European currency. It is also assumed that no member government would have automatic access to financing from the ECB or privileges in financial markets. Finally, the ECB is assumed not to have any redistributive role.[3]

Monetary union would have a number of implications for budgetary policies. The move toward a single, independent monetary policy with the objective of maintaining a low level of inflation within the context of an integrated, liberalized financial market implies that several member governments may face a loss of revenue from money seigniorage and from privileges in financial markets.[4] EMU would also affect the relationship between budget deficits and interest rates. Monetary union would facilitate increased financial integration, since with the elimination of intra-EC currency risk, financial assets would become closer substitutes. This deepening of the market for government paper would enable governments to finance public deficits without having to face sharply rising real interest rates. However, a monetary union might raise the required return on government bonds, since domestic residents would have access to a greater number of alternatives to domestic government bonds. On balance, it is likely that borrowing costs would fall for governments with large borrowing needs as long as markets had confidence that their debt would be serviced, either by other member states through a bailout (see Section II), or by future domestic governments (see Section III). Financial markets would enforce budget discipline by raising the cost of borrowing and differentiating credit ratings only if they feared that neither foreign nor future governments would honor debt obligations.

The 1992 internal market project is designed to enhance productivity by permitting rationalization of production through removal of physical, technical, and fiscal impediments to the free movement of goods, services, capital, and labor within the EC. Fixity of exchange rates would

[3] In practice, various activities of the ECB may entail redistributions between member countries—for example, the distribution of profits due to money seigniorage.

[4] See, for example, Grilli (1988) and Gros (1989) for estimates of the size of government revenue from money seigniorage in European countries, and Gaspar and Braga de Macedo (1990) for estimates of the size of revenue from financial privileges accruing to the Government of Portugal. It is true that, depending on the demand for the European currency (or currencies) inside and outside the EC, the overall revenue from seigniorage in the EMU may remain significant, and an unchanged distribution could shield some member states from the loss of revenue mentioned above. However, this maintenance of existing seigniorage revenues would perpetuate inefficient systems of taxation, because it would favor countries where inefficiencies in tax collection currently make revenue from seigniorage and financial privileges seem relatively attractive.

moreover reduce transaction costs within the EC. Completion of the internal market may substantially enhance the mobility of goods and services whose transportation costs are relatively small. Higher product mobility will, in turn, raise the sensitivity of direct investment with respect to such factors as present and prospective labor costs, tax rates, and the availability of public services (for example, infrastructure, education).[5]

It is therefore generally expected that the internal market will enhance the intra-EC mobility of financial and physical capital, both directly as a result of the removal of barriers to such movements and indirectly as a result of trade integration. Similar forces will influence the mobility of labor, but significant, socioeconomic differences such as those relating to language and culture as well as significant "transportation" costs of labor will probably continue to limit mobility in large segments of the labor market. Indeed, Molle and van Mourik (1988) present empirical results indicating that labor migration in the EC is stimulated by trade integration and income differentials, but restrained by cultural differences and distance.

Hence, it is likely that a discrepancy will remain between, on the one hand, relatively high goods and capital mobility, and, on the other hand, relatively low labor mobility. As discussed more fully in Section IV, limited labor mobility (together with price and wage rigidities) implies that the loss of intra-EMU exchange rate adjustment as a policy instrument may require some additional flexibility in budgetary policies to deal with macroeconomic shocks.

The tendency toward greater mobility of products, production factors, incomes, and assets in the internal market will have implications for government revenues and expenditures. Given the considerations advanced above, it is likely that the base for capital taxation in particular, and, to a lesser extent, the bases for labor taxation and commodity taxation (value-added tax and excises) will become more sensitive to intra-EC differences in tax rates, reducing the freedom of governments to set rates at levels significantly higher than those in other EC countries.

Similar influences may also exert pressures on the expenditure side (for example, public expenditures for infrastructure and education). In fact, governments will find it increasingly difficult to levy "nonbenefit" taxes—that is, taxes that do not correspond to benefits associated with public services (see, for example, Tanzi and Bovenberg (1990)). EC member governments have yet to decide to what extent these develop-

[5] The influence of budgetary policy on international direct investment in EMU is highlighted by Isard (1989).

ments call for concerted harmonization of certain nonbenefit tax rates and tax bases. Nevertheless, whether harmonization is achieved by negotiation or through market forces, the internal market will reduce margins for maneuver of national budgetary policies. This implies that servicing public debt by running a primary surplus will become increasingly difficult, because the taxes levied to create this surplus would cause tax bases to leave the country.

II. Monetary Union and Prospects for Budget Discipline

Two aspects of budget discipline associated with EMU are especially relevant. First, EMU may exacerbate the adverse external effects that any EC country would impose on its EC partners if it pursued undisciplined budgetary policies. This risk could reduce the incentive to pursue disciplined policies, because part of the benefits would be absorbed by other countries. Second, even a government that has strong incentives for maintaining budget discipline faces margins within which the public deficit and debt must be kept for the budget to remain controllable; by limiting the scope for varying public revenues and expenditures, EMU may narrow these margins, thus raising the risk that, due to some shock, the budget would move beyond the margins and become difficult to control.

Adverse International Spillovers from Undisciplined Budgetary Policies

Undisciplined budgetary policies can generate international spillovers that could have an adverse effect on the credibility of monetary policy or could induce bailouts by other EMU members.

Effects on Credibility of Monetary Policy

Undisciplined budgetary policies might threaten price stability in the EMU at large because they would increase pressures on the ECB to pursue more accommodative monetary policies. The proposed arrangements for an independent ECB, whose primary responsibility would be to maintain price stability, are aimed at reducing the vulnerability of monetary policy to these pressures. Despite these arrangements, however, undisciplined budgetary policies might still compromise price stability because they would increase the ECB's incentives to engineer a surprise monetary expansion. Lax budgetary policies might therefore reduce the credibility of the ECB's commitment to price stability unless

a mechanism existed that permitted the monetary authorities to sustain behavior that is optimal but time inconsistent.[6]

The sources of time inconsistency that would influence ECB behavior are associated with nominal contracts. For example, high levels of nominal public debt would increase the incentive for the ECB to renege on its commitment to price stability through a surprise inflation tax; by reducing the real value of member governments' nominal liabilities, the ECB would implicitly bail out the public sector. Tabellini (1988) stresses that the existence of nominal external liabilities in the domestic currency associated with expansionary budgetary policies would also bias the authorities' incentives toward more accommodative monetary policies.[7]

Budget indiscipline in financially weak member countries would increase the pressures on the ECB to levy a surprise inflation tax on money balances to ease the financing of deficits in these countries.[8] Higher interest rates associated with large budget deficits may also put pressure on the ECB to relax monetary policy in order to shield interest-sensitive sectors, such as the construction industry, from crowding-out pressures associated with expansionary budgetary policies.[9] Furthermore, if sizable budget imbalances have been allowed to occur in individual member states, their eventual correction may lead these countries to advocate more permissive monetary policies in order to offset the deflationary effect of the required large primary budget surpluses and to facilitate the adjustment of real wages needed to maintain full employment.[10]

These pressures may be especially serious in EMU because the EC countries have a diverse history of budget discipline. With independent monetary policies, each country internalizes the cost of public debt to a large extent, through a reduced credibility of its own anti-inflation com-

[6] Policies are time inconsistent when incentives exist for the government or central bank to depart from previously announced plans.

[7] In EMU, the ministers of finance, rather than the ECB, may have the primary responsibility for setting exchange rate policy. They may find it more difficult to resist pressures for a surprise devaluation tax than an independent ECB would.

[8] This essentially amounts to a disagreement between countries about the optimal tax structure. See also van der Ploeg (1990).

[9] An appreciating real exchange rate vis-à-vis other major currencies may also cause producers of tradable goods to call for accommodative monetary policies.

[10] A degree of stability in relative prices, and especially in real exchange rates, may be valued as an international public good because it tends to avoid pressures on monetary authorities to bring these relative price changes about through nominal price increases, which may threaten the credibility of anti-inflation policies. Under some circumstances, expansionary budgetary policies can contribute to stable real exchange rates. Expansionary budgetary policies may thus yield positive rather than negative externalities. Hence, ceilings on public debts or deficits are not always appropriate. See also Section IV.

mitment. With EMU, in contrast, some of these costs would be shifted to other countries. The adverse effect of increased public borrowing on the credibility of the commitment to price stability of the ECB would, in principle, justify a tax on public borrowing in order to internalize the cost of the reduced anti-inflation credibility.[11] Other features, such as a surveillance procedure with an element of publicity, could be helpful as well (see also Section III).

However, the first-best solution for dealing with these externalities would be to eliminate the source of the externality by endowing the ECB with sufficient precommitment and discipline not to renege on its promise of price stability. Accordingly, rather than designing budget rules, formulating proper arrangements for *monetary* policy seems the most direct way to address these problems. Indeed, these considerations might suggest a preference for monetary rules over discretion. However, strict rules for the conduct of EMU-wide monetary policy may be neither feasible nor desirable, because they are likely to restrict unduly the ability of monetary policy to react to occasionally experienced shocks.

If rules are not feasible, appointing conservative central bankers who place a very high priority on price stability (more than society itself does) may contribute to maintaining the credibility of anti-inflation policies (see, for example, Rogoff (1985)). Thus, the creation of an independent ECB with a primary mandate to maintain price stability would help to reduce the adverse effect of public borrowing on the credibility of the anti-inflation commitment. Persson and Tabellini (1990) examine several other institutional arrangements that might help to increase credibility. For example, government issuance of indexed debt or foreign currency debt might help to reduce the temptation for the ECB to levy a surprise inflation tax by shrinking the tax base. Still, even a credible and independent ECB may not be capable in practice of fully offsetting inflationary pressures emanating from excessive public deficits. In any case, the need for and the form of possible budgetary rules depend on the credibility and nature of the monetary institutions in EMU.

Bailouts Through Budgetary Transfers Between EMU Members

The creation of the monetary union may increase pressures to bail out member countries not only through accommodative monetary policies but also through budgetary transfers between EMU members. By eliminating currency risk, a monetary union would encourage EMU residents to invest in debt instruments issued by governments of other member

[11] However, setting the appropriate tax rate would be very difficult in practice. See also Section V.

countries. The increased exposure of their residents would increase the pressures on EMU governments to bail out a member in financial distress. More generally, the increased political and economic integration associated with a move toward EMU would strengthen the solidarity and mutual interdependence among member countries. This would make it more difficult to resist bailing out a member country facing financial problems. Hence, a no-bailout clause would not be fully credible, in part because resource transfers through the structural funds or other indirect channels would effectively amount to a bailout.[12] Thus, the costs of undisciplined budgetary policies would be shifted to other EMU countries in the form of either higher taxes or a higher risk premium on their public debt.[13] In essence, bailout pressures would make the debt instruments issued by various EMU governments closer substitutes to the extent that increased borrowing by any one government would raise the risk premium paid by the other EMU members.

The effect of increased public borrowing on the probability of a budgetary bailout constitutes an argument in principle for either a tax on public borrowing or the subjection of budgetary policies to strict surveillance by the other member countries (as discussed above, the same argument applies in the case of pressure for monetary bailout). Some commentators have argued instead that a credible no-bailout clause together with complete information on the creditworthiness of governments (facilitated by standardized accounting), free movement of capital, and, more generally, increased efficiency of international capital markets would adequately discipline budgetary policies (see, for example, Bishop, Damrau, and Miller (1989)). Others have argued that governments should be encouraged to insure themselves against unfavorable shocks, thereby reducing pressures for bailout. Since the ECB's open market operations and its portfolio management could result in an implicit bailout, constraints might have to be imposed on the operations of the ECB as well.[14]

[12] Moreover, it may be hard to distinguish between financial difficulties due to undisciplined behavior, which would not justify financial assistance, and financial distress on account of an adverse shock that is difficult to hedge (such as a decline in the terms of trade)—especially when increased economic and financial integration reduces the margins for controlling budgetary imbalances.

[13] Budgetary bailout issues are related to those regarding monetary bailout discussed above, because the interest pressures generated by a budgetary bailout may lead to monetary accommodation and thus reduce the credibility of the commitment to price stability.

[14] It should be noted that the no-bailout clause would apply only to other EC governments. Current governments could still shift the burden to future governments of the same country as long as the latter honored the debt obligations inherited from previous governments (see Section III).

Implicit Bailouts by Other EMU Countries

The creation of a monetary union, by reinforcing several adverse spillover effects associated with expansionary budgetary policies, would allow EC countries to shift part of the costs of their deficit financing to their EC partners.[15] The mechanisms discussed below can be interpreted as alternative, less visible (than explicit budgetary transfers) channels through which EC countries could bail out a partner country that was pursuing lax budgetary policies.

These channels consist of tax and other distortions in partner countries, which are exacerbated by expansionary budgetary policies at home. For example, creation of EMU would enhance intra-EC capital mobility. Therefore, higher interest rates due to higher public borrowing in any particular EMU member state would spread to other EMU countries. This would tend to raise the costs of debt servicing facing other EMU governments because public sectors are generally net debtors. Moreover, tax bases might shrink as investment in other countries was crowded out. Hence, other governments would be forced to raise their rates of distortionary taxation. Furthermore, higher interest rates might worsen the distortions associated with real wage and other labor market rigidities, because higher interest rates often require lower real wages and a reallocation of labor in order to maintain economic activity and employment, as demand for nontradables contracts and capital moves to other countries.

Margins for Budget Control in the EMU

Drawing on Blanchard (1984), the notion that margins exist for controllable budgetary policy can be explained through the following expression for the annual change in the ratio of debt to gross national product (GNP) (derived in a straightforward manner from the government budget constraint):

$$b_t - b_{t-1} = [(r - g)/(1 + g)]b_{t-1} - x_t, \tag{1}$$

where b is the year-end debt/GNP ratio, x is the primary budget surplus (revenue minus noninterest expenditure) relative to GNP, r is the nominal rate of interest on public debt, and g is the rate of nominal GNP

[15] Depending on the nature of the shock hitting the system, expansionary budget policies may also exert positive externalities that are associated with the stabilization role of budgetary policy (Section IV).

growth.[16] From equation (1), it is clear that a stable debt/GNP ratio requires that the primary balance be equal to

$$x_t = [(r - g)/(1 + g)]b_t. \tag{2}$$

Thus, stabilization at a positive value of the debt/GNP ratio[17] requires that the primary balance be in surplus. The higher the ratio, the larger the surplus needed for stabilization. However, given that an upper limit exists on feasible government revenues and a lower limit on government expenditures (both relative to GNP), it is obvious that the primary balance can be adjusted only within certain margins. It is therefore imperative for controllability that the debt/GNP ratio not move beyond the limit compatible with the margins on revenues and expenditures. This is illustrated in Figure 1, where the line *OS* represents combinations of the primary balance and the debt/GNP ratio at which, according to equation (2), the latter is stabilized (the ratio rises in the area below this line, and falls above it); values below X^uX^u represent feasible primary balances; and the values to the left of B^uB^u represent feasible debt/GNP ratios.

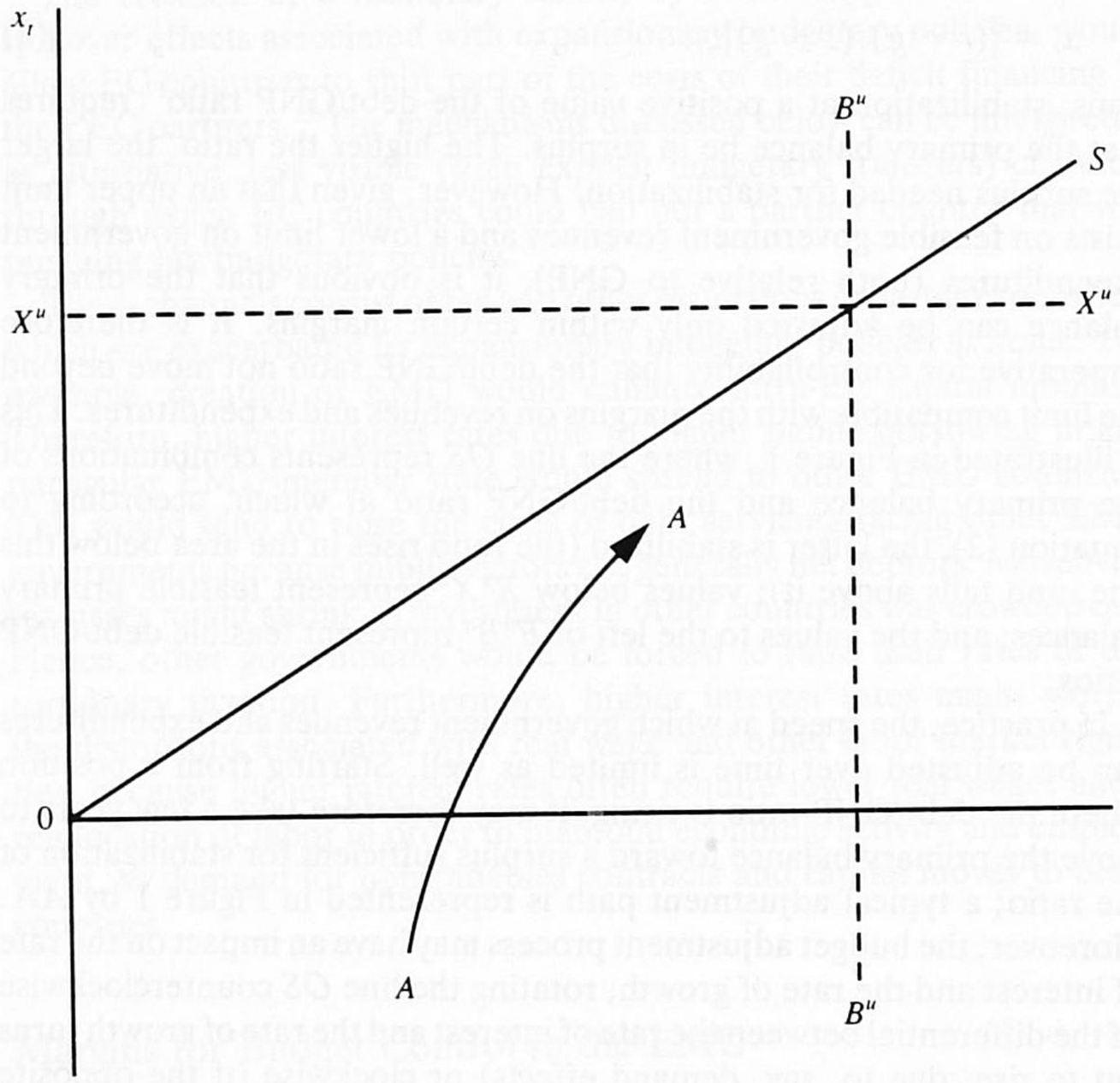
In practice, the speed at which government revenues and expenditures can be adjusted over time is limited as well. Starting from a position where the debt/GNP ratio is rising, it may therefore take a few years to move the primary balance toward a surplus sufficient for stabilization of the ratio; a typical adjustment path is represented in Figure 1 by *AA*. Moreover, the budget adjustment process may have an impact on the rate of interest and the rate of growth, rotating the line *OS* counterclockwise (if the differential between the rate of interest and the rate of growth turns out to rise, due to, say, demand effects) or clockwise (if the opposite happens, due to, say, credibility effects). For a given feasible upper limit for the primary balance, these effects may narrow or widen the feasible range for the debt/GNP ratio, respectively. The general conclusion is that a controllable policy must probably remain well within both of these margins. Policies forcing the public budget into the "gray regions" close to the margins will generate pressures for bailout, either by fellow EC member states or through higher inflation (that is, higher revenue from money seigniorage, raising the primary surplus).[18]

[16] In reality, the rates *r* and *g* are of course not necessarily constant over time; see below for further discussion.

[17] Assuming a positive interest/growth differential; see Abel and others (1989) for theoretical and empirical discussion.

[18] Revenues from money seigniorage and from privileges in financial markets are included with tax and nontax revenue rather than with borrowing, and hence are entered "above the line."

Figure 1. *Margins for the Primary Deficit and the Debt*



Note: The symbols are explained in the text.

EMU may change these margins through changes in the maximum feasible level of government revenues and the minimum feasible level of government expenditures (also by limiting the government's ability to vary revenues and expenditures independently), and changes in the rate of interest and the rate of growth (the slope of OS).

As argued in the previous section, the enhanced mobility of tax bases in the EMU would probably reduce member countries' scope for maintaining widely divergent nonbenefit tax levels. This would unambiguously narrow the budget margins for countries where, for economic and other reasons, the maximum permissible taxes are relatively high or the minimum permissible government expenditures are relatively low. Fur-

thermore, factor mobility is likely to force governments to rely more heavily on benefit taxes that are related to specific expenditures, making it more difficult to increase revenues while at the same time keeping constant or reducing spending. As a consequence, it will become more difficult in an EMU to absorb shocks to the budget by discretionary variations in other expenditure or revenue items.

It is not clear a priori whether EMU would raise or lower the sensitivity of the rate of interest on government debt and the rate of economic growth to changes in budgetary policy. It depends on the balance of several opposing forces (discussed above) whether a process of, say, budget consolidation would have a greater or lesser tendency to rotate counterclockwise the line *OS* (along which the debt/GNP ratio is stabilized).

III. Intergenerational Equity and Intertemporal Efficiency

This section explores how establishing a monetary union may affect incentives to pursue budgetary policies that are excessively expansionary from the standpoint of intertemporal efficiency and intergenerational equity. It concludes that monetary union may, on balance, worsen political distortions that give rise to a deficit bias, and, therefore, burden future generations. Thus, some constraints on budgetary policy may be desirable to protect not only other EC countries (Section II) but also future generations (and future governments) domestically.[19]

Monetary union may reduce the cost of borrowing as perceived by the government in power, as growing financial integration allows governments to borrow increasing amounts without having to face sharply rising interest rates. In a context where political distortions bias political decision makers toward the short run, lower borrowing costs tend to exacerbate these distortions in favor of current generations and at the expense of future generations.

The "political" discount rate may exceed the social discount rate for various reasons. Alesina and Tabellini (1987), for example, argue that governments have short time horizons because they face a probability of being voted out of office and replaced by a government pursuing different objectives. According to their model, the deficit bias becomes more serious if the probability that the current government will not be reap-

[19] This section assumes that governments honor the debt obligations incurred by their predecessors. Section II discussed issues associated with debt repudiation, default, and bailouts by EMU partners.

pointed rises, if the polarization in the political process becomes larger, or if government spending becomes more rigid (that is, the government has to provide a minimum level of certain public services).

Roubini and Sachs (1989) identify additional reasons for a deficit bias, including the difficulty of reaching cooperative agreements in coalition governments—especially if governments turn over rapidly. Other models of public choice also suggest that asymmetric information and other imperfections in the political process may result in a short-term bias of political decision making. For example, bureaucrats may succeed in raising current spending and borrowing at the expense of the welfare of the private sector (see, for example, Mueller (1979), Brennan and Buchanan (1980), and van Winden (1983)).

Since monetary union implies fixed nominal exchange rates among its members, another channel through which EMU could increase the political incentives for debt accumulation is the removal of the highly visible sanction of an exchange rate depreciation. Speculative attacks in foreign exchange markets are a powerful disciplining device for governments that are tempted to run large budget deficits. If each country is free to set its own monetary policy, larger public deficits are often accompanied by a weaker exchange rate because financial markets expect that governments will eventually succumb to the temptation to monetize public deficits.[20] Indeed, lax budgetary policies increase the incentives for governments to implement more expansionary monetary policies (see Section II).

In contrast, a monetary union reduces the ability of any one government to monetize its budget deficits, and, therefore, offers a way for each individual EC country to make credible commitments with respect to monetary policy.[21] The removal of the external constraint thus results in a lower inflation tax on current generations, but is likely to enhance the incentives for governments to shift the burden of taxation intertemporally to future generations through public borrowing. Thus, in a classic second-best result, a monetary union may well reduce (properly discounted) social welfare by exacerbating political distortions, although

[20] Increased public borrowing would appreciate the (nominal) exchange rate if financial markets expected that monetary authorities would resist this temptation. In the United States and the Netherlands, for example, large budget deficits have at times been accompanied by exchange rate appreciation.

[21] In the terminology of Masciandaro and Tabellini (1988), monetary policy becomes more "dominant"; that is, budgetary rather than monetary policy takes on the burden of repaying public debt. However, as pointed out in Section II, lax budgetary policies may heighten the pressure on the ECB to pursue more expansionary policies. Therefore, depending on the arrangements for the conduct of monetary policy, budgetary laxity may compromise the credibility of the ECB's commitment to price stability.

it strengthens the credibility of the commitment of each individual government to refrain from monetary financing.

Policymakers may find expansionary budgetary policies more attractive in a monetary union because such policies may be more effective in stimulating employment and economic activity in the short run. In particular, in an environment of sticky prices and high capital mobility, a fixed exchange rate regime generates larger positive short-run effects of expansionary budgetary policies on domestic aggregate demand and employment than does a floating exchange rate regime. However, this argument should become less valid to the extent that the internal market increases the share of domestic demand that falls on imports from other EC countries, and the positive effect of budgetary expansion on domestic output and employment decreases.[22]

One way of confronting the danger that monetary union could weaken budget discipline is to address directly the political distortions that fuel the deficit bias. However, it may not be feasible to reform political processes or to design institutions aimed at strengthening the incentives for governments to take the welfare of future generations into account. As an alternative, therefore, constraints such as surveillance by the EC and ceilings on public borrowing or debt imposed by the EMU could help to protect the interests of future generations in each country. In this connection, Tabellini (1987) argues that international institutions and rules of conduct can correct domestic political distortions originating from alternating governments because these institutions provide a mechanism for binding the choices of future governments. While international cooperation on discretionary policies might be undesirable because it excluded future policymakers, cooperation on general rules of conduct could be desirable because these rules would also bind future governments.

IV. Stabilization Policy

In this section, the costs and benefits of budgetary flexibility are examined from the point of view of influencing aggregate demand and employment. The benefits involve the ability to offset shocks that hit member nations. This ability may substitute for a system of intra-EC transfers at the Community level. The costs of budgetary flexibility include the dangers of fine-tuning and the possibility that activist bud-

[22] Of course, it is also true that there is already a considerable degree of fixity of exchange rates between countries participating in the exchange rate mechanism of the EMS.

getary policies may impose negative spillover effects on other countries. A concern to avoid fine-tuning would argue for (possibly contingent) rules rather than pure discretion, and negative spillover effects could be minimized by international coordination of budgetary policies. Deficit ceilings, though not a fully optimal solution either to the tendency to fine-tune or to the coordination problem, might nevertheless provide a better solution than budgetary policies that are set independently.

Advantages of Budgetary Flexibility

The role of macroeconomic stabilization policy is to respond to exogenous shocks that push the economy away from the objectives of adequate growth, full employment, and price stability. The emphasis in recent years has shifted away from the former two objectives toward the latter, as macroeconomic policies have proven to be less effective than was thought earlier in durably stimulating output and employment. Instead, setting appropriate structural policies and letting the private sector operate in an environment of predictable, rigorous government financial policies are seen as the best way for achieving these objectives.

The emphasis on price stability has also given more prominence to monetary policy. In these circumstances, limiting budgetary flexibility might not involve much in the way of costs. Nevertheless, there might be value in retaining the ability to influence aggregate domestic demand and the real exchange rate, and thereby to achieve macroeconomic objectives. Use of budgetary policy to influence aggregate demand might become more relevant in a monetary union because the monetary policy/exchange rate policy tool would no longer be available to national policymakers. This would be especially so if the EMU were accompanied by serious price and wage rigidities and limited international labor mobility. In those circumstances, adjustment to shocks might be prolonged and unnecessarily costly in terms of welfare.

Budgetary flexibility is likely to be most important when countries are hit by asymmetric shocks, which by their nature cannot be neutralized by Community-wide monetary policy, or when shocks are symmetric but there are differences either in national preferences or in initial conditions. Illustrations of these possibilities are given in Masson and Mélitz (1990). Since monetary union might not involve far-reaching political union, at least not for the foreseeable future, it is conceivable that national authorities would continue to have different preferences—for instance, a primary concern in the short run for full employment in France but for price stability in Germany. Since Community-wide monetary

policy would not be under the control of either country, each might try to use budgetary policy to attain its own short-run objectives, subject to longer-run convergence to a common (low) inflation rate. In addition, if the two countries started from different current account positions, for example, and a small deficit subsequently arose for France and a large surplus for Germany, or the reverse—the desired policy responses of each would likely be quite different. Masson and Mélitz (1990) argue that, in response to a dollar shock or an inflation shock, constraints on budgetary flexibility would lead to significantly lower welfare compared to a situation in which each country could respond flexibly.

Optimal Currency Areas and Budgetary Transfers

Budgetary flexibility of national governments can act as a substitute for a system of transfers at the Community-wide level. It has long been recognized that in the absence of labor mobility or of price and wage flexibility, a system of budgetary transfers that redistributes income to areas experiencing a fall in demand and high unemployment may be desirable, since it would have a stabilizing effect.[23] Labor mobility is lower in the EC than in existing federal states, such as Canada and the United States; real wage flexibility is also estimated to be quite low in Europe compared with North America (Bruno and Sachs (1985)). The need for budgetary transfers and/or budgetary flexibility in the EMU would depend on the extent to which the EMU raised labor mobility and real wage flexibility.

It has been argued that monetary unions would not survive in the absence of transfers or other policy tools to cushion shocks, since severe shocks would lead to defections (Sachs and Sala-i-Martin (1989)). Though the EC already has a system of transfer payments, transfers are on a much smaller scale than in monetary unions such as the United States; moreover, existing transfer payments are geared to structural differences, not stabilization objectives. As Sachs and Sala-i-Martin (1989) show, in the United States the Federal income tax serves a major function of absorbing shocks, since tax receipts are higher in favorably affected regions and lower in unfavorably affected regions. The Community will not have a similar system of taxation for the foreseeable future, since national authorities will retain almost all revenues collected within their jurisdiction.

[23] See Mundell (1961) and Kenen (1969). There may also be equity and efficiency reasons for such transfers; see Boadway and Flatters (1982).

In such circumstances, the ability to run national deficits may substitute for transfer payments from other member countries. Provided the shocks are temporary, occasional borrowing should be possible without affecting solvency. The existence of a Community-wide capital market in a common currency may make it easier than in the past to smooth shocks by borrowing, thereby making an enhanced system of transfers less necessary. Deficit ceilings, if they prevented borrowing in these circumstances, would restrict the use of an instrument for cushioning shocks.[24]

It may be difficult to distinguish optimal cushioning of temporary shocks from unnecessarily delayed adjustment to permanent shocks, however. The effects of even temporary shocks may persist for years if not decades, and legitimate doubts may exist about their ultimate effects and the ability of governments to take a long view. In practice, governments have sometimes fostered market rigidities because budgetary measures are perceived as a substitute for real adjustment; this would apply to transfers as well as national stabilization policies.

Dangers of Fine-Tuning

It is now widely accepted that there are advantages to running macroeconomic policy in a context of stable rules, rather than leaving policy to the complete discretion of the authorities. Simple, easily understandable rules should enhance the predictability of policy actions, thereby providing a stable environment for the private sector to make informed resource allocation decisions. In contrast, policy that is unfettered by rules may attempt to fine-tune target variables, and this could have several undesirable effects. First, policymakers may unwittingly destabilize the economy if the dynamic response of policy is not gauged and implemented correctly—as is likely in practice. Second, discretionary policy setting may be myopic for the reasons discussed in Section III. Budgetary policy could be framed in a medium-term context to offset this tendency. Third, use of budgetary flexibility to bail out firms, sectors, or regions may have unfavorable effects on private sector behavior, since the efficiency that accompanies market discipline could be impaired. In particular, discretion may encourage rent-seeking behavior and impair real adjustment to shocks by fostering market rigidities. Deficit, or debt, ceilings would prevent the unconstrained use of budgetary flexibility and

[24] Of course, to the extent that shocks produced transitional costs because of inflexibility in labor and product markets, it would be worthwhile to approach the first-best solution by reducing or, if possible and desirable from a broader social perspective, eliminating this inflexibility.

avoid some of the problems experienced in the 1970s and 1980s, when the cumulative effects of budgetary stimulus were sometimes ignored (see also Section III).

The mere announcement of policy rules would not however ensure that they are carried out. In general, there is a time-inconsistency problem for budgetary as well as for monetary policy, which implies that the passage of time creates incentives for the authorities to abandon a policy that was optimal when announced. For instance, the commitment not to bail out inefficient firms may be difficult to honor when massive unemployment threatens and the costs of a one-time bailout seem small. Ceilings imposed from outside—that is, at the Community level, might reduce the time-inconsistency problem by putting constraints on national governments. The Community as a whole would not face the same incentives to renege on the deficit ceilings—unless all the member countries faced the same difficulties at the same time.

International Coordination of Stabilization Policies

In one of the scenarios presented in Masson and Mélitz (1990)—simulation of an oil price shock—it was argued that the outcome might be much worse without coordination, because with different preferences each country would worsen the situation facing the other, leading to a possibly unstable circle of tightening policies. It is well known that the existence of spillovers constitutes a prima facie case for policy coordination. With fixed exchange rates among the countries of the monetary union and floating exchange rates vis-à-vis the rest of the world, there may be externalities that reinforce the case for such policy coordination. Cohen and Wyplosz (1989) argue that trade balance externalities would lead to an overactivist use of budgetary policy in response to an asymmetric, temporary supply shock. Therefore, coordination of the two countries' policies would make both better off. However, it is not clear that the externalities related to stabilization policy that are present under monetary union are more serious than those that prevail in its absence; indeed, the opposite case could be made (Bredenkamp and Deppler (1990)).

These externalities must be considered jointly with other externalities involving budget discipline and the credibility of monetary policy, discussed in Section II above. Because of the nature of stabilization policies, namely the use of budgetary instruments to offset shocks, the nature of the distortion or externality generally depends on the actual shock. For instance, for a positive oil price shock, spillovers between countries may

lead to overcontractionary aggregate demand policies, while the example of Cohen and Wyplosz (1989) involves overexpansionary policies. In contrast, the distortions discussed in Sections II and III are structural, and imply in most cases a persistent bias toward excessive deficits, depending on the arrangements for conducting monetary policy and for bailing out member states.

Coordination of discretionary macro policy may not always increase welfare.[25] Tabellini (1987) has shown that coordination between governments may *lower* welfare, because the private sector and future policymakers are excluded from the coordination agreements. In particular, coordination may worsen a deficit bias. There are also costs to negotiating agreements and difficulties in enforcing compliance. With lack of information about the precise effects of policies, coordination may in some cases make things worse (see Frankel and Rockett (1988), but also Ghosh and Masson (1988)).

Assuming coordination is desirable, could deficit ceilings also lead to a better outcome? Starting from a position close to the ceiling, countries that were inclined to stimulate budgetary policies would be constrained from doing so. However, excessive budgetary contraction would in no way be limited by such ceilings. It therefore seems unlikely that constraints on budgetary policy of the kind advocated in the Delors Report would consistently help to reach the coordinated solution, unless the net effect of the various distortions were always in the direction of overexpansionary policies. For *some* shocks requiring coordination, constraints would either not be binding or they would likely involve welfare losses from the point of view of macroeconomic stabilization. The same would apply to debt ceilings and other constraints that are not symmetric with respect to positive and negative deviations from optimal policies. Although in principle rules might be designed that allowed for a degree of flexibility inside bands fixed by some supranational authority (Buiter (1981)), it seems unlikely that they could be specified in a simple and transparent way that took into account all eventualities. What such constraints on budgetary policy would achieve is convergence, not coordination, and this might be seriously suboptimal in some circumstances. Moreover, if these constraints were to reduce the stabilization role of budgetary policy, pressures on EMU monetary policy to shoulder the stabilization role might increase, at the cost in some circumstances of higher inflation. In these circumstances, monetary policy might result in

[25] See Horne and Masson (1988) for a discussion of some of the issues. Feldstein (1988) and Tanzi (1988) caution on various grounds against international coordination of macro policies.

suboptimal outcomes, because of inappropriately stimulative targets (Barro and Gordon (1983)).

V. Concluding Comments

This paper considered, at an analytical level, whether EMU will make it desirable to institutionalize constraints limiting the freedom of national budgetary policies. This issue is a topical one since it is currently being debated by EC members in the context of an Intergovernmental Conference on EMU that began in December 1990. The paper approaches the question from three angles: the influence of the EMU on budget discipline, intergenerational equity and intertemporal efficiency, and macroeconomic stabilization.

The EMU may reinforce several adverse externalities that any particular EC country can impose on fellow member states by pursuing an expansionary budgetary policy. In a monetary union, excessive budget deficits incurred by any country may compromise the credibility of the union's monetary policy with respect to price stability and raise pressure on other member states to bail it out. Also, the monetary union may increase the temptation to shift the burden of an expansionary budgetary stance to future generations.

The solution to the problem of monetary credibility would no doubt be to appoint "conservative central bankers" (in Rogoff's sense) to run monetary policy with unassailable commitments to price stability (and with operational independence from political authorities). The bailout problem could be solved ideally by an effective mechanism designed to rule out the possibility of a bailout. The first-best solution to the tendency to shift burdens onto future generations would be to improve the representation of their interests in the political process. However, this issue goes well beyond the scope of this paper.

Since it would be difficult to attain these preferred solutions, the question remains what contribution constraints on budgetary policy institutionalized at the EC level can make. Given the dangers of a deficit bias, it is tempting to conclude that constraints on deficits and debts or a tax on public borrowing would be desirable. However, practical arguments caution against such a conclusion.

In order to be neither too tight nor too lax, such budgetary rules would need to be attuned to the targeted externalities and to the specific circumstances of member states. For example, they would have to take account of contingent liabilities of governments and the structure of tax and expenditure systems. Furthermore, it would be very difficult to

design rules that would allow member countries to use macroeconomic policy to offset shocks and at the same time would internalize international externalities associated with the use of stabilization policies. In addition, "creative accounting" at the implementation stage might enable governments that are committed to the formalities but not the underlying spirit of the rules largely to circumvent them (for example, Gramm-Rudman-Hollings, use of state enterprises in Italy, and the experience of New York City—see Bishop, Damrau, and Miller (1989)). Practical difficulties in formulating clear and unambiguous rules would also make it hard to enforce them, which in turn would undermine their credibility and disciplining force.

Given these practical aspects and paying heed to the subsidiarity principle, the following considerations seem especially relevant for the design of EMU. First, the firm institutionalization of the ECB's commitment to price stability and of the no-bailout clause would be a move in the direction of the first-best solutions. Second, policies that, in the context of the internal market or otherwise, enhanced the supply-side flexibility of EC economies (flexibility of relative prices and wages) would reduce the temptation to use expansionary policies to boost domestic output and employment. Flexibility of relative prices and wages would also temper the need for demand management, facilitate adjustment to both temporary and permanent shocks, and reduce the need for an intra-EC transfer mechanism. Third, an intra-EC surveillance process for budgetary policies would provide a mechanism for internalizing the externalities associated with undisciplined budgetary policy; the negative spillovers of excessive deficits on future generations at home and abroad would become more visible. The surveillance process might also include binding procedures for forcing efficient adjustment on countries with excessive deficits and debt. The process could be grounded on common principles and accounting frameworks, thereby reinforcing the awareness of policymakers, financial markets, and the electorate that the EMU was oriented toward policy discipline not only in the monetary but also in the budgetary field.

REFERENCES

Abel, Andrew B., N. Gregory Mankiw, Lawrence H. Summers, and Richard J. Zeckhauser, "Assessing Dynamic Efficiency: Theory and Evidence," *Review of Economic Studies*, Vol. 56 (January 1989), 1–20.

Alesina, Alberto, and Guido Tabellini, "A Positive Theory of Fiscal Deficit and Government Debt in a Democracy," NBER Working Paper No. 2308 (Cambridge, Massachusetts: National Bureau of Economic Research, July 1987).

Barro, Robert J., and David B. Gordon, "Rules, Discretion and Reputation in a Model of Monetary Policy," *Journal of Monetary Economics,* Vol. 12 (July 1983), pp. 101–21.

Bishop, Graham, Dirk Damrau, and Michelle Miller, "1992 and Beyond: Market Discipline CAN Work in the EC Monetary Union" (London: Salomon Brothers, November 1989).

Blanchard, Olivier J., "Current and Anticipated Deficits, Interest Rates, and Economic Activity," *European Economic Review,* Vol. 25 (June 1984), pp. 7–27.

Boadway, Robin, and Frank Flatters, "Efficiency and Equalization Payments in a Federal System of Government: A Synthesis and Extension of Recent Results," *Canadian Journal of Economics,* Vol. 15 (1982), pp. 613–23.

Bredenkamp, Hugh, and Michael Deppler, "Fiscal Constraints of a Fixed Exchange Rate Regime," in *Choosing an Exchange Rate Regime: The Challenge for Smaller Industrial Countries,* ed. by Victor Argy and Paul De Grauwe (Washington: International Monetary Fund, 1990).

Brennan, Geoffrey, and James M. Buchanan, *The Power to Tax: Analytical Foundations of a Fiscal Constitution* (Cambridge; New York: Cambridge University Press, 1980).

Bruno, Michael, and Jeffrey Sachs, *Economics of Worldwide Stagflation* (Cambridge, Massachusetts: Harvard University Press, 1985).

Buiter, Willem H., "The Superiority of Contingent Rules over Fixed Rules in Models with Rational Expectations," *The Economic Journal,* Vol. 91 (1981), pp. 647–70.

Cohen, Daniel, and Charles Wyplosz, "The European Monetary Union: An Agnostic Evaluation," in *Macroeconomic Policies in an Interdependent World,* ed. by Ralph C. Bryant and others (Washington: The Brookings Institution, Centre for Economic Policy Research, and International Monetary Fund, 1989).

Commission of the European Communities, "Economic and Monetary Union: The Economic Rationale and Design of the System," *Europe Documents* (March 23, 1990); *BIS Review* (March 28 and March 30, 1990).

Committee for the Study of Economic and Monetary Union (Delors Committee), *Report on Economic and Monetary Union in the European Community,* Luxembourg, April 1989.

Feldstein, Martin, "Distinguished Lecture on Economics in Government: Thinking about International Economic Coordination," *Journal of Economic Perspectives,* Vol. 2 (Winter 1988), pp. 3–13.

Frankel, Jeffrey A., and Katharine E. Rockett, "International Policy Coordination when Policymakers Do Not Agree on the True Model," *American Economic Review,* Vol. 78 (June 1988), pp. 318–40.

Gaspar, Victor, and Jorge Braga de Macedo, "The Case for Budgetary Restraint in Portugal: Short-Run and Long-Run Arguments," paper presented at a conference on "Fiscal Aspects of European Economic Integration" (New Haven, Connecticut: Yale University Council on West European Studies and Centre for Economic Policy Research, March 1990).

Ghosh, Atish, and Paul R. Masson, "International Policy Coordination in a World with Model Uncertainty," *Staff Papers,* International Monetary Fund, Vol. 35 (June 1988), pp. 230–58.

Grilli, Vittorio, "Seigniorage in Europe," NBER Working Paper No. 2778 (Cambridge, Massachusetts: National Bureau of Economic Research, October 1988).

Gros, Daniel, "Seigniorage in the EC: The Implications of the EMS and Financial Market Integration," IMF Working Paper 89/7 (Washington: International Monetary Fund, January 1989).

Horne, Jocelyn, and Paul R. Masson, "Scope and Limits of International Economic Cooperation and Policy Coordination," *Staff Papers,* International Monetary Fund, Vol. 35 (June 1988), pp. 259–96.

Isard, Peter, "The Relevance of Fiscal Conditions for the Success of European Monetary Integration," IMF Working Paper 89/6 (Washington: International Monetary Fund, January 1989).

Kenen, Peter B., "The Theory of Optimum Currency Areas: An Eclectic View," in *Monetary Problems of the International Economy,* ed. by Robert Mundell and Alexander Swoboda (Chicago: University of Chicago Press, 1969).

Masciandaro, Donato, and Guido Tabellini, "Monetary Regimes and Fiscal Deficits: A Comparative Analysis," in *Monetary Policy in Pacific Basin Countries,* ed. by Hang-sheng Cheng (Norwell, Massachusetts: Kluwer Academic Publishers, 1988).

Masson, Paul, and Jacques Mélitz, "Fiscal Policy Independence in a European Monetary Union," IMF Working Paper 90/24 (Washington: International Monetary Fund, March 1990).

Molle, Willem, and Aad van Mourik, "International Movements of Labour Under Conditions of Economic Integration: The Case of Europe," *Journal of Common Market Studies,* Vol. 26 (March 1988), pp. 317–42.

Mueller, Denis, *Public Choice* (Cambridge; New York: Cambridge University Press, 1979).

Mundell, Robert, "A Theory of Optimum Currency Areas," *American Economic Review,* Vol. 51 (September 1961), pp. 657–65.

Persson, Torsten, and Guido Tabellini, *Macroeconomic Policy, Credibility, and Politics* (London: Harwood Academic Publishers, 1990).

Rogoff, Kenneth, "The Optimal Degree of Commitment to an Intermediate Monetary Target: Inflation Gains Versus Stabilization Costs," *Quarterly Journal of Economics,* Vol. 100 (November 1985), pp. 1169–89.

Roubini, Nouriel, and Jeffrey D. Sachs, "Political and Economic Determinants of Budget Deficits in the Industrial Democracies," *European Economic Review,* Vol. 33 (May 1989), pp. 903–38.

Sachs, Jeffrey D., and Xavier D. Sala-i-Martin, "Federal Fiscal Policy and Optimum Currency Areas," paper presented at a conference on "European Economic Integration: Towards 1992" (Cambridge, Massachusetts: National Bureau of Economic Research, August 1989).

Tabellini, Guido, "Domestic Policies and the International Coordination of

Fiscal Policies," paper presented at a conference on "The Political Economy of International Policy Coordination" (Andover, Massachusetts: National Bureau of Economic Research, November 1987).

———, "Exporting the Inflation Tax," paper presented at a conference on "Monetary Policy" (Washington: American Enterprise Institute, November 1988).

Tanzi, Vito, "International Coordination of Fiscal Policies," IMF Working Paper 88/70 (Washington: International Monetary Fund, August 1988).

———, and A. Lans Bovenberg, "Is There a Need for Harmonizing Capital Income Taxes Within EC Countries?" IMF Working Paper 90/17 (Washington: International Monetary Fund, March 1990).

van der Ploeg, Frederick, "Macroeconomic Policy Coordination During the Various Phases of Economic and Monetary Integration in Europe" (unpublished; Tilburg: Center for Economic Research, Tilburg University, April 1990).

van Winden, Frans A.A.M., *On the Interaction Between State and Private Sector: A Study in Political Economics* (Amsterdam; New York: North-Holland, 1983).